

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of MD 5 at the Entrance to the Shops @ Breton Bay in St. Mary's County, Maryland. MD 5 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in NEMA five (5) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for the northbound movement of MD 5. The MD 5 through movements will operate concurrently. The Entrance to Shops @ Breton Bay commercial driveway movements will operate concurrently.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and three 4-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	818	27 ft. steel mast arm pole with 60 ft. mast arm [Note: four 2 in. x 90 in. anchor bolts].
1	EA	818	27 ft. steel twin mast arm pole with 70 ft. and 50 ft. mast arms [Note: four 2 in. x 90 in. anchor bolts].
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, and three 4-channel rack mounted loop detector amplifiers [Note: Controller and cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
7	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in./ 8 in., one-way five section (12 in. YA,GA,/ 8 in. R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	813	36 in. x 42 in. R 10-12 sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
2	EA	813	24 in x 72 in. M 95-1 sign with mast arm mounting hardware.
4	EA	813	48 in x 48 in w 3-3 "NEW" sign for ground mounting.
2	EA	817	15 ft. luminaire arm.
2	EA	806	250 W H.P.S. lamp and luminarie.

B. Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
10	EA	811	Handhole.
630	LF	815	Sawcut for signal loop detector.
2425	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
2430	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
290	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
120	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
900	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
5	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
5	LF	810	3-wire (No. 8 A.W.G.) electrical cable.
180	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
50	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
745	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
160	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
210	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
20	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
10.55	CY	801	Concrete foundation for traffic signal equipment.
3	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-13 underground electrical service.
160	EA	810	24 in. wide HAPPTM - white for stop line.
164	LF	812	4 ft. x 6 ft. wood sign support.
1	EA	---	Cut, clean, and cap mast arm.
Lump Sum	LS	---	As-built for S.H.A. (on CADD).

The contact persons for District #5 are as follows:

Mr. Paul Armstrong
District Engineer
410-841-5450

Mr. Larry Elliott
Assistant District Engineer - Traffic
410-841-5450

Mr. John Mays
Assistant District Engineer - Utility
410-841-5450

Mr. Charles George
Assistant District Engineer - Maintenance
410-841-5450

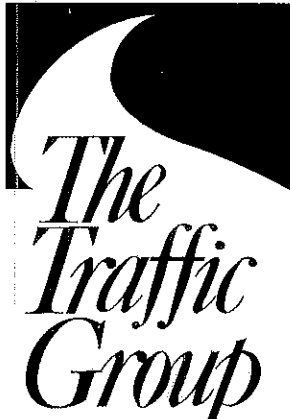
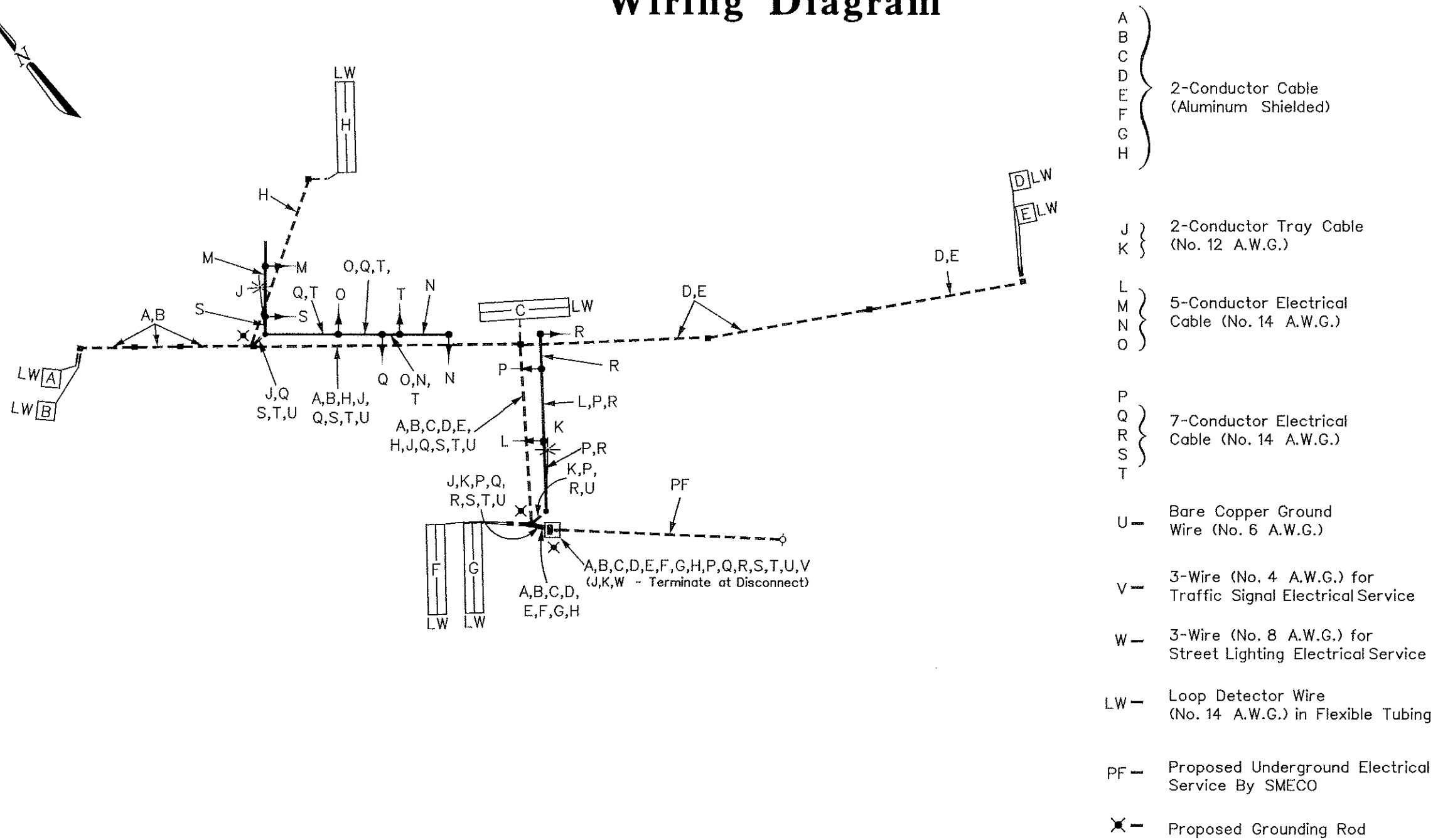
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
SMECO
Mr. Jay Bushel
P.O. Box 128
Leonardtown, Maryland 20650
301-475-5631

Phase Chart

	1	2	3	4	5	6	7	8	9	
Phase 1 & 6	G	G	G	R	R	R	R	R	R	
6 Change	G	G	G	R	R	R	R	R	R	
Phase 2 & 6	G	G	G	G	G	R	R	R	R	
2 & 6 Change	Y	Y	Y	Y	Y	R	R	R	R	
Phase 4 & 8	R	R	R	R	R	G	G	G	G	
4 & 8 Change	R	R	R	R	R	Y	Y	Y	Y	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

Wiring Diagram



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Towson, Maryland 21204
410-583-8405
1-800-383-8411
Fax 410-321-8458
Job No. 970215
SIGPLAN.DGN



MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)

MD 5 at Entrance to Shops @ Breton Bay

DATE: November 4, 1999	LOG MILE	PLAN SHEET NO.:	SHEET NO.
DRAWN BY: FJH/JES	F.A.P. NO. N/A	3943-GI	2 of 2
CHK. BY: [Signature]	S.H.A. NO. BW996M82		
SCALE: N/A	COUNTY: St. Mary's		